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Keeping up with Growth by Recommitting to a Long-Term Waste-to-Energy Future

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ABSTRACT

The Solid Waste Authority of Palm Beach County (Authority) has owned the North County Resources Recovery Facility (NCRRF) since 1989, producing clean, economical and renewable energy from refuse derived fuel while preserving precious landfill space. As with any facility as it approaches the end of its first 20-year operating term, the Authority found it necessary to initiate a comprehensive refurbishment to ensure its continued effective operations. The operating agreement between the Authority and the Palm Beach Resource Recovery Corporation (PBRRC), a subsidiary of Babcock & Wilcox (B&W), is set to expire concurrently with the end of the this 20-year term. The Authority acknowledged that PBRRC has unparalleled institutional knowledge of the NCRRF and, as such, took the opportunity to renegotiate its operating agreement with PBRRC for an additional 20-year term.

The Authority was also able to build into the new operating agreement conditions for PBRRC to provide assistance to a third party design-builder performing the refurbishment. Additionally, understanding that B&W produced many of the key combustion unit components of the original NCRRF construction, the Authority worked into the new agreement terms for B&W to provide several essential components for the refurbishment that will be installed by the design-builder.

When the refurbishment is completed in 2011, the Authority will still only have disposal capacity through 2021 with its existing landfill. To be able to keep up with rapid growth in Palm Beach County, the Authority has initiated the due diligence phase for the development of a new mass burn waste-to-energy facility and landfill that will expand the disposal capacity of the Authority's system for more than 100 years.

INTRODUCTION

Created in 1978, the Solid Waste Authority of Palm Beach County (Authority) has developed an "award winning" solid waste management system that includes franchised solid waste collections and the following facilities to service the residents and businesses in Palm Beach County, Florida:

- North County Resource Recovery Facility (NCRRF);
- Ferrous Processing Facility;

- Residential Materials Recycling Facility;
- Commercial Materials Recycling Facility;
- Transfer Stations;
- Class I Landfill;
- Class III Landfill;
- Woody Waste Recycling Facility;
- Composting Facility; and
- Household Hazardous Waste Facility.

THE END OF AN ERA AND PROACTIVE PLANNING

The Authority has proactively planned and implemented its current integrated solid waste management program to ensure disposal capacity through 2021 (Fig. 1). However, like many communities, the Authority anticipates continued population growth and associated new development patterns that will significantly increase demands on its solid waste system, requiring it to reevaluate and update its planning to accommodate future growth.

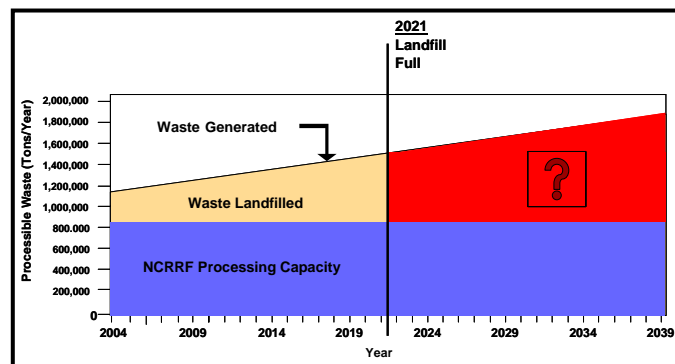


Fig. 1 Current Waste Processing Capacity

The NCRRF, the Authority's refuse derived fuel waste-to-energy facility, has performed very well since its start up late in 1989 processing over 13 million tons of municipal solid waste saving valuable landfill space and efficiently producing clean renewable energy. The NCRRF has been properly maintained and represents a valuable asset to the Authority. As the NCRRF approaches the end of its first 20-year operating term, it will be necessary to complete a comprehensive refurbishment and upgrade in order to ensure its